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41841/AJ/Ip

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EXAMINER

HOLLOWAY, JASON R

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/575,952	Applicant(s) FERRARI, MARCO	
	Examiner JASON HOLLOWAY	Art Unit 3633	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 April 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 35-68 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 35-68 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 April 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>13 April 2006</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This communication is a first Office Action Non-Final rejection on the merits. Claims 1-34 have been canceled. Claims 35-68 are currently pending and have been considered below.

Claim Objections

1. Claims 35 and 36 are objected to because of the following informalities: The control means and the return means of the instant application are the same device however the scope of the claims are confused since both devices are claimed and it appears they are intended to be two different devices. Appropriate correction is required.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 47, 49 and 51 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 47, the recitation "disk-like element" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Regarding claim 49, the phrases "for example" and "such as" render the claim indefinite because it is unclear whether the limitations following the phrases are part of

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the claimed invention. See MPEP § 2173.05(d). Claim 51 depends from rejected claim 49 and therefore carries the same deficiency.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 35-36, 40-47, 52-57, 59-64 and 66-68 are rejected under 35 U.S.C. 102(b) as being anticipated by Thuries et al. (here forth Thuries) (4,330,103).

Regarding claim 35, Thuries teaches an isolator/dissipator for interfacing between the ground (foundation 1) and supporting structures (as illustrated in the figure), comprising

a supporting base (base member 9) that can be fixed to the ground (foundation 1) and supports a contact base (first plate 3) that can be associated, by way of kinematic connection means, with a lower portion of at least one supporting upright (jacks 4) of a supporting structure (as illustrated in the figure),

interface means (made up of balls 6, sole plates 5 and 7, base member 8, cages 10 and 11, annular rim 12, second plate 17, spherical heads 18, trailing cylinder 19, and spring 20) being provided between said contact base (first plate 3) and said supporting base (base member 9) and being capable of allowing said contact base (first plate 3) to move with respect to said supporting base (base member 9) at least along two

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directions that are parallel to the ground (abstract lines 6-9 teaches the first plate 3 moves horizontally with respect to the base member),

return means (spring 20) being provided which are adapted to control the relative movement between said contact base (first plate 3) and said supporting base (base member 9), said return means (spring 20) acting between said supporting base and said contact base (column 3 lines 21-22 teaches the spring returns the plate 3 to its rest position after an earthquake).

Regarding claim 36, Thuries teaches the return means (spring 20) comprise control means (control means is comprised of base 8, second plate 17, spherical heads 18, trailing cylinder 19, and spring 20) for controlling the movement of said contact base with respect to said supporting base (9), said control means having a behavior that is substantially at least elastic (column 3 lines 9-15 teach the controlling properties of the spring 20; it is notoriously well known in the art that springs have elastic properties).

Regarding claim 40, Thuries teaches the interface means (6-8, 10-12, 17-20) are adapted to allow the movement of said contact base (first plate 3) on a plane that is substantially parallel to the ground (abstract lines 6-9 teach the first plate 3 moves horizontally, which is a plane horizontal to the ground).

Regarding claim 41, Thuries teaches the interface means (6-8, 10-12, 17-20) comprise a plurality of balls (steel bearing balls 6), which rest on said supporting base (base member 9; the balls rest on the supporting base 9 via base member 8) and support said contact base (first plate 3 is supported by the balls 6, as illustrated in the figure).

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Regarding claims 42 and 43, Thuries teaches the plurality of balls (6) are kept spaced from each other by way of a framework which comprises means that are capable of retaining the balls (cylinders or cages 10 and 11 keep the balls on either side of the earthquake protector from contacting one another, thus meeting the limitations of the claims).

Regarding claims 44 and 45, Thuries teaches the interface means (6, 7, 8, 10, 11, 12, 17, 18, 19 and 20) comprise a sheet (sole plate 7) with a low friction coefficient which can be made of PTFE (column 2 lines 51-56 teach the sole plates can be covered with PTFE).

Regarding claims 46 and 47, Thuries teaches the control means (control means is comprised of base 8, second plate 17, spherical heads 18, trailing cylinder 19, and spring 20) comprise at least one substantially annular element (second plate 17 is an annular element), which has a first edge and central core that can be fixed to said contact base (first plate 3) (as illustrated in the figure the second plate 17 has a first edge and central core provided with a ring or hole in which the bolt 15 connects the second plate 17 to the first plate 3) and a second edge that can be fixed to said supporting base (base 9) (the second edge is connected to the base 9 via spherical heads 18 and trailing cylinder 19).

Regarding claim 52, Thuries teaches the control means (control means is comprised of base 8, second plate 17, spherical heads 18, trailing cylinder 19, and spring 20) comprise a plurality of connection elements for connecting said supporting base (9) and said contact base (first plate 3) (spherical heads 18, trailing cylinder 19,

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and spring 20 connect the base 9 to the first plate 3 via base 8 and the plurality of balls 6, thus meeting the limitations of the claim).

Regarding claim 53, Thuries teaches the connection elements (18-20) are arranged radially (by definition, the two connection elements 18-20 shown in the figure are arranged radially).

Regarding claims 54 and 55, Thuries teaches the connection elements (18-20) have an elastic behavior (it is notoriously well known in the art that springs have an elastic behavior) and are springs (via springs 20).

Regarding claim 56, Thuries teaches the kinematic connecting means comprise a pin (the examiner construes the bolt 15 is considered the same as a pin) that protrudes from said contact base (first plate 3) substantially at right angles to said contact base (as illustrated in the figure), and an engagement seat for said pin (as illustrated in the figure, the head of the bolt is provided with an engagement area), which is formed at said lower portion of said at least one supporting upright (jack 4) (as illustrated in the figure, the engagement area is provided at the bottom of the jacks 4, therefore meeting the limitations of the claim).

Regarding claim 57, Thuries teaches locking means for locking said at least one supporting upright (jacks 4) to said supporting base (jacks 4 are locked into the first plate 3 via screwing, jack 4 is locked to the supporting base via bolt 15 which connects the interface means to the base 9).

Regarding claim 59, Thuries teaches a first ring for fixing said substantially annular element to said contact base (a first ring or hole is provided in the second plate

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17 which allows for attachment of the bolt 15, thus connecting the second plate 17 to the first plate 3 and meeting the limitation of the claim) and a second ring for fixing said substantially annular element to said supporting base (by definition, the multiple control means 18-20 disposed radially around the second plate 17 form a ring and aid in supporting the second plate to the base 9, thus meeting the limitations of the claim).

Regarding claim 60, Thuries teaches positioning and centering means for the central positioning and centering of said interface means (the centering means are comprised of the bolt 15 and control elements 18-20).

Regarding claim 61, Thuries teaches the initial positioning and centering means comprise a plurality of spring-type centering elements, which are interposed between said framework and said second fixing ring (control elements provide centering means and comprise springs; as illustrated in the figure).

Regarding claim 62, Thuries teaches at least one connecting element (bolt 15) for connection between said contact base (first plate 3) and said interface means (6, 8, 10, 11, 12, 17, 18, 19 and 20) capable of providing the initial positioning of said interface means (as illustrated in the figure, the bolt 15 connects the first plate 3 to the second plate 17 of the interface means. This bolt is capable of centering the interface means, thus meeting the limitations of the claim).

Regarding claim 63, Thuries teaches the connecting element (15) can engage said supporting base (9) (the bolt 15 engages the supporting base 9 via second plate 17, spherical head 18 and trailing cylinder 19, thus meeting the limitations of the claim).

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Regarding claim 64, Thuries teaches the at least one connecting element (bolt 15) comprises at least one centering pin (the Examiner construes the bolt 15 is considered the same as a pin and centers the first plate 3 and the interface means with one another) capable of engaging within respective centering openings provided in said contact base (first plate 3), in said interface means (via second plate 17; as illustrated in the figure).

Regarding claim 66, Thuries teaches the control means (control means is comprised of base 8, second plate 17, spherical heads 18, trailing cylinder 19, and spring 20) comprise at least one response control device, which comprises fluid elements of the Newtonian type or of the non-Newtonian type associated with said interface means (column 2 lines 30-33 teaches a damping fluid is disposed in volume 14 of the interface means).

Regarding claim 67, Thuries teaches the supporting upright (jack 4) is capable of supporting at least one shelf of an industrial shelf unit (support member 2 could be a shelf to support an apparatus, therefore the claim limitations are met).

Regarding claim 68, Thuries teaches the earthquake protector is associated with a circuit breaker, which is a component for the building sector.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 37-39 and 48-51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thuries et al. (4,330,103).

Regarding claims 37-39, Thuries teaches a control means (18-20), however, Thuries fails to disclose the control means has an elastoplastic, viscoelastic or viscoelastoplastic behavior.

It would have been obvious to one having ordinary skill in the art at the time of the invention was made to make the control means from elastoplastic, viscoelastic or viscoelastoplastic materials since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. In re Leshin, 125 USPQ 416. It is also common knowledge to choose a material that has sufficient strength, durability, flexibility, hardness, etc. for the application and intended use of that material. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Thuries to include a control means with elastoplastic, viscoelastic or viscoelastoplastic properties in order to provide the proper damping characteristics depending on the environment where the earthquake protector is to be installed.

Regarding claims 48, 49, 50 and 51, Thuries teaches the control means comprise a material having a high coefficient of friction, however Thuries fails to disclose the control means are provided with a pre-tensioned para rubber sheet, silicone sheet, styrene rubber, natural rubber, styrene and polybutadiene rubber, nitrile

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rubber, chloroprene rubber (Neoprene), ethylene propylene rubber (EPDM), fluoridized rubber, silicone rubber and natural or chloroprene rubber sheet.

It would have been obvious to one having ordinary skill in the art at the time of the invention was made to make the spherical heads of the control means from a from one of the materials listed above since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. In re Leshin, 125 USPQ 416. It is also common knowledge to choose a material that has sufficient strength, durability, flexibility, hardness, etc. for the application and intended use of that material. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Thuries to provide the control means with a pre-tensioned silicon or rubber sheet material in order to provide a proper amount of friction between the spherical head and the second sheet.

8. Claims 58 and 65 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thuries et al. (4,330,103) in view of Wells (1,761,322).

Regarding claim 58, Thuries teaches a locking cross-member (support member 2) which is parallel to the ground during use (as illustrated in the figure).

However, Thuries fails to disclose the cross member can be fixed to at least one shoulder that protrudes from the supporting base and is arranged above an abutment element supported by at least one supporting upright.

Wells teaches an anti-earthquake foundation construction which is provided with a cross member (rigid frame 1) fixed to a shoulder (posts 8) that protrudes from the

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supporting base (cross head 4) and is arranged above an abutment element (saddle plates 10) supported by a supporting upright (column 3).

Therefore, from the teaching of Wells, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the earthquake protector of Thuries to include columns extending from the base and connecting to the support members via an abutment member such as the saddle plates of Wells in order to provide a longer support member while maintaining proper structural support and stability in the support member by means of the added columns.

Regarding claim 65, the combination of Thuries and Wells teaches an embodiment of the control means which comprises a toroidal element (as disclosed in column 2 lines 57-61 of Thuries, springs 20 can be replaced with a torus shaped helical spring) that has an elastic or elastoplastic or viscoelastic or viscoelastoplastic behavior (it is notoriously well known in the art that springs have an elastic behavior) and is interposed between said contact base (first plate 3) and an abutment shoulder (via posts 8 of Wells) that rises from said supporting base.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JASON HOLLOWAY whose telephone number is (571) 270-5786. The examiner can normally be reached on M-F 9:00-5:00.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Glessner can be reached on 571-272-6843. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JASON HOLLOWAY
Examiner
Art Unit 3633

JH

/Brian E. Glessner/
Supervisory Patent Examiner, Art Unit 3633